The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Original) A method for operating a pointing device in a low power manner, comprising:

receiving first tracking information from a first tracking device;

periodically determining accuracy of the first tracking information; and

activating and using a second tracking device to acquire second tracking information when said determining indicates that the accuracy of the first tracking information is inadequate, wherein the first tracking device is substantially lower power device that the second tracking device.

2.   (Original) A method as recited in claim 1, further comprising:

deactivating the second tracking device when said determining indicates that the accuracy of the first tracking information is adequate.

3.   (Original) A method as recited in claim 1, wherein the first tracking device is an accelerometer and wherein the second tracking device is an optical tracking engine.

4.   (Currently Amended) A method as recited in claim 1, wherein the **pointing device** ~~computer mouse~~ further includes a surface sensor.

5.   (Original) A method as recited in claim 4, further comprising:

determining if a surface is a suitable surface by the surface sensor; and

deactivating both the accelerometer and the optical tracking engine when it is determined that the surface is not a suitable surface.

APL1P285/P3114   2

6.   (Original) A method as recited in claim 3,

calibrating the accelerometer using a calibration value provided by the optical tracking
engine.

7.   (Original) A method as recited in claim 6, wherein when the accelerometer is only
providing the tracking information to the computer, the power consumption of the computer
mouse is substantially reduced as compared to the power consumption when the optical tracking
engine is only providing the tracking information to the computer.

8.   (Original) A method as recited in claim 6, wherein the calibrating comprises:

resetting an accelerometer offset value based upon the calibration.

9.   (Original) A method as recited in claim 8, further comprising:

reducing an accumulated error value of the accelerometer based upon the resetting.

10.   (Currently Amended) A hybrid tracking system suitably arranged to provide tracking
information to a computer, comprising:

an optical tracking engine arranged to provide the tracking information to the computer;

a low power inertial tracking engine arranged to provide the tracking information to the
computer; and

an adaptive duty cycle signal generator coupled to the optical tracking engine and the
inertial tracking engine arranged to compare tracking information provided by the **low power**
inertial tracking engine ~~accelerometer~~ and provided by the optical tracking engine such that
when the comparison is valid, the adaptive duty cycle signal generator provides a first duty cycle

APL1P285/P3114   3

signal that deactivates the optical tracking engine such that only the low power tracking engine provides the tracking information to the computer.

11. (Original) A tracking system as recited in claim 10, wherein when the comparison is determined to be not valid, the adaptive duty cycle generator provides a second duty cycle signal that activates the optical tracking engine such that only the optical tracking engine provides the tracking information to the computer.

12. (Original) A tracking system as recited in claim 10 wherein the hybrid tracking system is associated with a computer mouse.

13. (Original) A tracking system as recited in claim 10, wherein the inertial tracking sensor is an accelerometer that provides a measure of mouse acceleration and mouse velocity.

14. (Original) A tracking system as recited in claim 12, wherein the adaptive duty cycle depends upon mouse velocity, or mouse acceleration, or a surface quality associated with a surface upon which the mouse is in contact.

15. (Original) A tracking system as recited in claim 14, further comprising:
a surface sensor arranged to observe a number of surface quality parameters and determined, based upon the observed surface quality parameters, if the mouse is in physical contact with a suitable surface.

16. (Original) A tracking system as recited in claim 14, wherein when the surface sensor determines that the mouse in not in physical contact with a suitable surface, then the surface

APL1P285/P3114   4

sensor causes the mouse to deactivate by deactivating both the optical tracking engine and the accelerometer.

17.   (Original) A tracking system as recited in claim 11, wherein when the optical tracking system is only providing the tracking information, the accelerometer provides corresponding accelerometer based velocity values each of which are compared to each other to provide an error value.

18.   (Original) A tracking system as recited in claim 17, wherein a number of error values are combined to form an accumulated error value.

19.   (Original) A tracking system as recited in claim 18, wherein the accumulated error value is used to reset an offset value for the accelerometer.

20.   (Original) A tracking system as recited in claim 19, wherein the reset offset value reduces the accumulated error thereby commensurable reducing positional error at the computer.

21.   (Original) A tracking system as recited in claim 10, wherein the tracking system is in wireless communication with the computer.

22.   (Original) Computer program product for operating a pointing device in a low power manner, comprising:

      computer code for receiving first tracking information from a first tracking device;

      computer code for periodically determining accuracy of the first tracking information;

computer code for activating and using a second tracking device to acquire second tracking information when said determining indicates that the accuracy of the first tracking information is inadequate, wherein the first tracking device is substantially lower power device that the second tracking device; and

computer readable medium for storing the computer code.

23.   (Original) A computer program product as recited in claim 22, further comprising:

computer code for deactivating the second tracking device when said determining indicates that the accuracy of the first tracking information is adequate.

24.   (Original) A computer program product as recited in claim 22, wherein the first tracking device is an accelerometer and wherein the second tracking device is an optical tracking engine.

25.   (Original) A computer program product as recited in claim 22, wherein the computer mouse further includes a surface sensor.

26.   (Original) A computer program product as recited in claim 25, further comprising:

computer code for determining if a surface is a suitable surface by the surface sensor; and

computer code for deactivating both the accelerometer and the optical tracking engine when it is determined that the surface is not a suitable surface.

27.   (Currently Amended) A computer program product as recited in **claim 24** ~~claim 34~~,

computer code for calibrating the accelerometer using a calibration value provided by the optical tracking engine.

APL1P285/P3114   6

28.   (Original) A computer program product as recited in claim 27, wherein when the accelerometer is only providing the tracking information to the computer, the power consumption of the computer mouse is substantially reduced as compared to the power consumption when the optical tracking engine is only providing the tracking information to the computer.

29.   (Original) A computer program product as recited in claim 27, wherein the computer code for calibrating comprises:

    computer code for resetting an accelerometer offset value based upon the calibration.

30.   (Original) A computer program product as recited in claim 29, further comprising:

    computer code for reducing an accumulated error value of the accelerometer based upon the resetting.

New Claims

31.   (New) A method for operating a pointing device having a surface sensor in a low power manner, comprising:

    receiving first tracking information from a first tracking device;

    periodically determining accuracy of the first tracking information;

    activating and using a second tracking device to acquire second tracking information when said determining indicates that the accuracy of the first tracking information is inadequate, wherein the first tracking device is substantially lower power device that the second tracking device;

    determining if a surface is a suitable surface by the surface sensor; and

    deactivating both the accelerometer and the optical tracking engine when it is determined that the surface is not a suitable surface.

APL1P285/P3114   7

32.   (New) A method as recited in claim 31, further comprising:

deactivating the second tracking device when said determining indicates that the accuracy of the first tracking information is adequate.

33.   (New) A method as recited in claim 31, wherein the first tracking device is an accelerometer and wherein the second tracking device is an optical tracking engine.

34.   (New) A method as recited in claim 33,

calibrating the accelerometer using a calibration value provided by the optical tracking engine.

35.   (New) A method as recited in claim 34, wherein when the accelerometer is only providing the tracking information to the computer, the power consumption of the computer mouse is substantially reduced as compared to the power consumption when the optical tracking engine is only providing the tracking information to the computer.

36.   (New) A method as recited in claim 35, wherein the calibrating comprises:

resetting an accelerometer offset value based upon the calibration.

37.   (New) A method as recited in claim 36, further comprising:

reducing an accumulated error value of the accelerometer based upon the resetting.

38.   (New) Computer program product for operating a pointing device having a surface sensor in a low power manner, comprising:

computer code for receiving first tracking information from a first tracking device;

computer code for periodically determining accuracy of the first tracking information;

computer code for activating and using a second tracking device to acquire second tracking information when said determining indicates that the accuracy of the first tracking information is inadequate, wherein the first tracking device is substantially lower power device that the second tracking device;

computer code for determining if a surface is a suitable surface by the surface sensor; and

computer code for deactivating both the accelerometer and the optical tracking engine when it is determined that the surface is not a suitable surface; and

computer readable medium for storing the computer code.

39.   (New) A computer program product as recited in claim 38, further comprising:

computer code for deactivating the second tracking device when said determining indicates that the accuracy of the first tracking information is adequate.

40.   (New) A computer program product as recited in claim 38, wherein the first tracking device is an accelerometer and wherein the second tracking device is an optical tracking engine.

41.   (New) A computer program product as recited in claim 40,

computer code for calibrating the accelerometer using a calibration value provided by the optical tracking engine.

42.   (New) A computer program product as recited in claim 41, wherein when the accelerometer is only providing the tracking information to the computer, the power consumption of the computer mouse is substantially reduced as compared to the power consumption when the optical tracking engine is only providing the tracking information to the computer.

43.   (New) A computer program product as recited in claim 41, wherein the computer code for calibrating comprises:

computer code for resetting an accelerometer offset value based upon the calibration.

44.   (New) A computer program product as recited in claim 43, further comprising:

computer code for reducing an accumulated error value of the accelerometer based upon the resetting.

APL1P285/P3114   10